

Infestation and Eradication of *Anoplophora glabripennis* in Austria



Development Stages

> Egg

The female can lay up to 300 eggs throughout its lifetime in self-cut scars in the bark, mainly of thin-barked stems and branches, preferably in forks or existing bark scars.

> Young larva

The larva emerges after 2 weeks of egg ripening, first feeding in the baste, then penetrates deeply into the wood.

> Old larva

Old larva is up to 5 cm long and 1 cm thick, has no legs and typical markings at the prothorax (arrow).

> Pupa

Pupation takes place after 1-2 years of larva feeding in the wood. The pupa stage lasts around 3 weeks.

> Beetle

The beetle emerges between May and end of October out of a perfectly round emergence hole of approximately 1 cm in diameter.



Proof of *Anoplophora*-Introductions

Outdoor-Infestations	on/in imported (plant) material
1996 USA: <i>A. glabripennis</i>	2001 Germany: <i>A. glabripennis</i>
2000 Italy: <i>A. chinensis</i> form <i>malasiaca</i>	2003 Netherlands: <i>A. chinensis</i>
2001 Austria: <i>A. glabripennis</i>	2004 Germany: <i>A. glabripennis</i>
2002 Japan: <i>A. glabripennis</i>	2004 Poland: <i>Anoplophora</i> spec.
2003 France: <i>A. glabripennis</i> , <i>A. chinensis</i>	2005 UK: <i>A. chinensis</i>
2003 Canada: <i>A. glabripennis</i>	2005 Germany: <i>A. glabripennis</i>
2004 Germany / Bavaria: <i>A. glabripennis</i>	2006 UK: <i>A. chinensis</i>
2004 France: <i>A. glabripennis</i>	
2005 Germany / NRW: <i>A. glabripennis</i>	



Chronology of Introduction

- 1997 / 1998 suspected introduction of the Asian Longhorn Beetle (ALB) into the industrial area of Braunau with wood packaging material
- November 2000: the first dead sugar maple (*Acer saccharum*) showing "big holes" was felt
- Saperda carcharias* was suspected to be responsible
- July 2001: during cuttings of further 4 dead trees one beetle was caught and photographed
- 31.07.2001: diagnosis of the pest by the BFW and announcement to the local and district authorities of Braunau, the Forest Office of Upper Austria as well as to the Federal Ministry (BMLFUW), followed by the European Commission, all member states and plant protection services
- 02.08. – 08.08.2001: discovering of the immediate damage dimension, package of measures
- provide extensive information to the media

Present Infestation extent

- Until June 2006, altogether 99 infested trees were detected and destroyed.
- The infestation is limited so far to the area of the city in the surroundings of the industrial and shopping area as well as to the district Scheuhub of Ranshofen (map).
- Affected tree species: 89 *Acer saccharum*, *A. saccharinum*, *A. platanoides*, *A. pseudoplatanus* and *A. campestre*, 1 *Platanus* sp., 2 *Fagus sylvatica* „Atropunicea“, 1 *Fagus sylvatica* „Aspenifolia“, 4 *Betula* sp. and 2 *Aesculus hippocastanum*.
- In January 2002, about 900 young maple trees without obvious symptoms were felt within a small forest-like strip near to infested trees
→ among them 12 trees were infested by ALB!
- In February 2006, the complete tree crop of the dike of the river Inn was cut down from Scheuhubstr. downstream up to the Inn power station for 1 km
→ investigations revealed no ALB infestation.
- In February / March 2006, a little forest of Poplar was completely logged felt in Scheuhub
→ Infestation by *Saperda carcharias* was observed.
- Both logging actions were precautionary measures to remove breeding material for 17 ALB beetles, which were emerged and escaped in Scheuhub.
- "Officially" 118 adult beetles were captured so far (the last ones in September 2004) and killed.

General Eradication Actions

immediate destruction of all suspicious trees by:

- cutting on plastic foil
- chipping of all organic material on the spot
- shredding of the roots
- burning of the shredding material

Decree of the Federal Ministry (BMLFUW) for the Monitoring of ALB

- Infested zone = radius of 1000 m around infested areas:
visual examination of every susceptible and endangered tree
- Safety zone = political district of Braunau:
regular random sample examination of susceptible trees
- Federal territory of Austria:
intensive monitoring of susceptible trees especially around known Asian and USA importers

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